

OLBERT et al., Ser. No. 09/936,354

IN THE SPECIFICATION

Page 1, line 12, insert

Background of the Invention

OLBERT et al., Ser. No. 09/936,354

Page 3, line 42, insert

Summary of the Invention

OLBERT et al., Ser. No. 09/936,354

Page 7, line 25, insert

Brief Description of the Drawings

OLBERT et al., Ser. No. 09/936,354

Page 8, line 6, insert

Description of the Preferred Embodiments

Page 4, first paragraph, line 2, please rewrite the paragraph as follows:

We have found that this object is achieved by the multitube reactor having the features of claim 4 12. According to the present invention, it is proposed that in the case of relatively large reactors in which a large amount of heat of reaction is generated owing to the numerous catalyst tubes and has to be removed, the ratio of tube spacing  $t$  to external tube diameter  $d_a$  be made dependent on the reactor diameter or on the external tube bundle diameter  $d_{RBa}$ . In particular, the present invention proposes providing a ratio of tube spacing  $t$  to external tube diameter  $d_a$  of at least 1.3. Preferably, the catalyst tubes are arranged such that three adjacent tubes form a triangle, preferably a equilateral triangle. In this case, tube spacing  $t$  is equal to the length of the sides of the triangle

OLBERT et al., Ser. No. 09/936,354

Page 8, line 1 of paragraph 2, please rewrite as follows:

Figure 8 shows a longitudinal section of a forth fourth embodiment of the reaction of the present invention.

Page 10, last paragraph, line 21, please rewrite the paragraph as follows:

Finally, Figure 8 show a schematic longitudinal section of a forth fourth embodiment of the multtube reactor of the present invention. In this embodiment, reactor 35 is a two-zone reactor which is, in the longitudinal direction of the catalyst tubes 17, divided into two zones 36, 37 maintained at different temperatures. Zones 36 and 37 are supplied by separate heat exchange circuits. In the example depicted, a first salt solution is introduced via fittings 38, 39 into the first zone 36 and withdrawn therefrom via fitting 40, 41. Correspondingly, a second salt solution is introduced via fittings 42, 43 into the second zone and withdrawn therefrom via fittings 44, 45. Both zones 36, 37 are separated from each other by means of a tube sheet 46 having a thickness of 50 mm. The sheet comprises openings through which the catalyst tubes 17 are inserted. After insertion, the tubes are widened hydraulically to some extent so as to provide for a good and largely leak-tight fit of the tubes 17 in tube sheet 46. In each zone baffle plates 47 are provided for guiding the salt melt radially from an outer region to the center of the reactor which is free from catalyst tubes, where the melt is directed upwards to be then again directed to the outer region of the reactor. In Fig. 8, large arrows 48 indicate the flow direction of reaction gases while smaller arrows 49, 50 indicate the flow of the salt melt.